

**HIGH DENSITY MOLECULAR ARRAYS ON POROUS SURFACES**

**ABSTRACT OF THE DISCLOSURE**

The present invention provides a unique and highly accurate method for generating  
molecular arrays of very high density on porous surfaces. The method involves the  
application of focused acoustic energy to each of a plurality of fluid-containing reservoirs  
to eject a small fluid droplet--on the order of 1 picoliter or less--from each reservoir to a  
site on a porous substrate surface. High density molecular arrays are provided as well, in  
which greater than about 62,500 molecular moieties, serving as array elements, are  
present on a porous surface. Biomolecular arrays that can be generated using focused  
acoustic ejection include oligonucleotide arrays and peptidic arrays.